(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 4 August 2005 (04.08.2005)

PCT

(10) International Publication Number WO 2005/070514 A1

- (51) International Patent Classification⁷: B01D 17/02,
- (21) International Application Number:

PCT/EP2005/000227

- (22) International Filing Date: 10 January 2005 (10.01.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 04290203.1 27 January 2004 (27.01.2004) EP
- (71) Applicant (for FR only): SERVICES PETROLIERS SCHLUMBERGER [FR/FR]; 42, rue Saint-Dominique, F-75007 Paris (FR).
- (71) Applicant (for AT, AU, AZ, CO, DE, DK, ES, HR, ID, IE, IT, KP, KR, KZ, MX, NO, NZ, PH, PL, RO, RU, SK, TM, UA, ZA only): SCHLUMBERGER TECHNOLOGY B.V. [NL/NL]; Parkstraat 83-89, 2514 JG The Hague (NL).
- (71) Applicant (for all designated States except AE, AT, AU, AZ, BR, CA, CG, CM, CN, CO, CZ, DE, DK, DZ, EC, EG, ES, FR, GA, GN, GQ, GW, HR, ID, IE, IN, IT, KP, KR, KZ, LT, MA, MX, NA, NE, NO, NZ, OM, PG, PH, PL, RO, RU, SD, SK, SY, TD, TM, TN, TR, TT, UA, US, VN, ZA): SCHLUMBERGER HOLDINGS LIMITED; P.O. Box 71, Craigmuir Chambers, Road Town, Tortola (VG).
- (71) Applicant (for CA only): SCHLUMBERGER CANADA LIMITED [CA/CA]; 525-3rd Ave S.W., Calgary, Alberta, CA T2P 0G4 (CA).
- (71) Applicant (for CN only): SCHLUMBERGER OVER-SEAS S.A. [PA/PA]; 8 Calle Aquilino de la Guardia, Panama City (PA).
- (71) Applicant (for AE, OM, SD, SY, TR only): SCHLUM-BERGER OILFIELD ASSISTANCE LIMITED; Craigmuir Chambers, Road Town, Tortola (VG).
- (71) Applicant (for BR only): SCHLUMBERGER SURENCO S.A. [PA/PA]; 8 Calle Aquilino de la Guardia, Panama City (PA).
- (71) Applicant (for TT only): SCHLUMBERGER SER-VICES LIMITED; P.O. Box 438, Tortola (VG).
- (71) Applicant (for EG only): SCHLUMBERGER SEACO INC. [PA/PA]; 8 Calle Aquilino de la Guardia, Panama City (PA).

- (71) Applicant (for CG, CM, CZ, DZ, EC, GA, GN, GQ, GW, IN, LT, MA, NA, NE, PG, TD, TN, VN only): PRAD RESEARCH AND DEVELOPMENT N.V. [NL/NL]; De Ruyterkade 62, Willemstad, Curacao (AN).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): PAYS, Christian [FR/FR]; 30, rue de la petite Normandie, F-78330 Fontenay Le Fleury (FR). CORAILLER, Christophe [FR/FR]; 9, rue Saint Didier, F-75016 Paris (FR).
- (74) Common Representative: ETUDES & PRODUC-TIONS SCHLUMBERGER; 1, rue Henri Becquerel -BP 202, F-92142 Clamart Cedex (FR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- of inventorship (Rule 4.17(iv)) for US only
- of inventorship (Rule 4.17(iv)) for US only

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SMALL DROPLETS RECOVERY SYSTEM

(57) Abstract: A system for separating an emulsion fluid into a recovered fluid and a purified fluid. The emulsion fluid comprises a continuous phase and a dispersed phase. The purified fluid is essentially constituted of the continuous phase. The system comprises a vessel at an inlet of which the emulsion fluid may flow. The system further comprises one or more coalescing element. Each coalescing element allows to coalesce at least a portion of the dispersed phase into large drops further detached from the coalescing element upon a flow of the emulsion fluid. The system further comprises one or more guiding mean. Each guiding mean is associated with one coalescing element to guide the detached large drops for further recovery.





070514